

Next Gen NPDN! Registration Opens for the Third NPDN National Meeting

Richard Bostock, NPDN Executive Director and WPDN Director, Department of Plant Pathology, University of California at Davis

The theme is "Next Gen NPDN," and the meeting will provide a venue to stimulate new ideas and alliances as we look to the future of the NPDN. A distinguished line up of plenary speakers will provide some of the latest thinking on invasive pests and pathogens, analysis of outbreaks and the importance

New pests and pathogens emerge, techniques and protocols change: Are you ready?

Register today for the third NPDN National Meeting!

of plant biosecurity. Symposia and discussion sessions will cover state of the art diagnostic technologies, current plant pests of concern, and new ways of training the next generation

and looking at diagnostic data. The meeting will convene at the Doubletree Hotel and Executive Meeting Center on the Berkeley marina overlooking the San Francisco Bay. We have assembled an excellent program that will appeal to all those concerned with plant diagnostics and plant health, emerging pests and pathogens and food security. Registration is open and you are now officially invited to register for the third National Meeting of the NPDN.

Come Early, Stay (a Day) Longer

Since you will be in the area, consider coming a day early to take advantage of our pre-meeting workshops. With focus on bacterial diagnostics, light brown apple moth and European grapevine moth, applied nematology,

article continues on page 2...

Asian longhorned beetle in OH

ALB adult at the USDA Forest Service Quarantine Facility in Ansonia, CT. Photo courtesy of Karen L. Snover-Clift, Cornell University. [Ohio ALB quarantine map](#), from the Ohio Department of Agriculture website.



Issue Highlights:

- NPDN National Meeting registration opens!
- APHIS confirms ALB in Ohio
- Diagnostic tips for triage time
- National Repository: pest group/synonyms expanded
- Don't move firewood links
- Invasive woodboring beetles



National Institute of Food and Agriculture

and *Botryosphaeria* identification, there is sure to be something for everyone. Workshops will be held on the campus of the Dominican University of California in nearby San Rafael. A day of optional tours is scheduled after the meeting convenes; visit sudden oak death impacted areas, the Oakland-San Francisco Port Inspection Station, the Napa/Sonoma wine country, or the central valley for a look at thousand cankers disease of walnut including a visit to one of the premier plant diagnostic laboratories in the country, the CDFA Plant Pest Diagnostic Center near Sacramento.

We hope you will come and join us at the 2011 NPDN National Meeting for this great opportunity to learn, collaborate and network with your plant diagnostic colleagues. New pests and pathogens emerge, techniques and protocols change: are you ready? Register today! To register, view the program or get more information please visit our meeting website at <http://ucanr.org/sites/NPDN/>. 🌿

APHIS Confirms ALB in Ohio and Surveys are Underway

APHIS Newsroom

USDA-APHIS and the Ohio Department of Agriculture (ODA) announced on June 17 that surveys are under way in Bethel, Ohio, after the detection and identification of the Asian longhorned beetle (ALB).

Ohio is the fifth state to detect ALB, which APHIS confirmed in Bethel after a citizen reported finding unusual damage in three maple trees to an Ohio Department of Natural Resources Division of Forestry service forester.

The Asian longhorned beetle was first discovered in Brooklyn, NY in 1996 and has since been found in Illinois, New Jersey, Massachusetts and now

Ohio. APHIS considers these previous locations to be successfully contained.

Read [the full APHIS newsroom announcement here](#) and [click here](#) for a link to a local news release. 🌿

Great information on ALB for the public is available at: http://inr.synapticdigital.com/USDA_37505/.

Please visit the above link and pass it along. It contains great videos (including the one below), images, as well as a direct link to USDA's Beetle Busters site at www.beetlebusters.info/

Click here to view ALB PSA on YouTube.



NPDN Awards Nominations Being Accepted

Sharon Dobesh, Department of Plant Pathology, Kansas State University

Don't forget to nominate a deserving colleague for one of the many NPDN Awards which will be announced at the National Meeting in November. Consider nominations for one or more of the following:

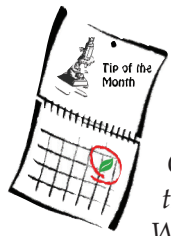
NPDN First Detector Educator Awards

- Outstanding First Detector Educator Training Award
- Outstanding Team First Detector Educator Training Award
- Outstanding Promotion of the Online Crop Biosecurity Course

NPDN Outstanding Service Awards

- NPDN Outstanding Service Award
- NPDN Outstanding Team Service Award

And don't forget those "squashed bugs" and other strange sample submissions! New this year is the Rotten Tuber Award for samples that are strange or unique.



Timely Tips for Triage Time

Contributed by attendees at the 2010 NPDN Diagnostics Workshop held at Penn State

It's that time of year when a few tips like these may help with some of the mayhem in your triage lab:

- Get an inexpensive roll of craft paper to spread out on your table or workbench when working with 'dirty' plants or root systems; easy to wrap up and throw away when finished; also comes in handy as a temporary notepad. ~ *K. Ong*
- Use box lids or similar cardboard containers to contain dirt on roots or shed needles while examining plant samples. ~ *T. Creswell*
- Hang a whisk broom nearby to sweep counter/table tops into the waste basket ~ *T. Creswell*
- Keep a few corks for 'squashing' samples on slides – no finger smudge and spreads the pressure so fewer cover slips break. (Plastic cover slips will also break less easily while 'squashing.')
- Use pipette tip box bottoms to hold sample extraction bags, especially when you are dealing with a lot of ELISA samples at the same time. 1000ML pipette tip boxes are the same size as extraction bags. ~ *Raghuwinder 'Nick' Singh*

NPDN Rotten Tuber Award for Most Unique Sample Submission

1st, 2nd, 3rd, Honorable Mention

The deadline is **August 1, 2011**. Details can be found at www.npdn.org. Please take the time to recognize deserving individuals who have gone above and beyond to make the NPDN training and other activities great! 🌱

- Storing bacterial culture plates at 4 degrees C will slow down the growth over the weekend and give you more time to work with single colonies. Plates inoculated on Wednesday or Thursday can be stored at 4 degrees C over the weekend and can be used again on Monday. (This is only if you do not want to work on weekends!) ~ *Raghuwinder 'Nick' Singh*
- Use the finely tapered scalpel blades (with or without handle) as dissecting tools or to pick fungi off agar to transfer to a slide for microscopic examination. Allows for good motor control and easy to sterilize for re-use. ~ *L. Skoglund*
- Keep a white piece of laminated paper next to the scopes to put slides on for easy viewing while preparing mounts in a drop of water or for examining small pieces or root or plant. No need to worry about staining or contamination with the laminated sheet—easy to wipe off and disinfect. ~ *C. Smith*
- Wooden paint stirrers can be cut in length to fit your dissecting scope stage. The wood is soft and can be used as a cutting surface that will not dull your blade quality. (Plastic container tops also work.) ~ *T. Watson* 🌱

Diagnostic Updates

National Repository: Expansion of Pest Group/Synonyms

Mike Hill and Eileen Luke, CERIS, Purdue University

As you may recall from the March newsletter, the pest group/synonym software has been placed in production and is currently being used for entry of diagnostic lab data that does not contain common names. This software change in no way changed the specific common name/pest combination that a diagnostician may enter. It merely links them behind the scenes and allows for

able to begin reviewing the relationships between pest groups and the combined uniqueness of scientific and common names. After the committee has had an opportunity to make any necessary modifications we will begin working on enhancements to the first submission by state reports.

Currently, the first submission by state reports creates e-mail alerts based on the first time a unique combination of scientific and common name has been reported to NPDN by state. The proposed modifications will be based upon using the pest groups which are unique to the scientific name.

The screenshot shows a web browser window with the URL https://npdn.ceris.purdue.edu/htbin/npdn_refpest2.com. The page title is "NPDN Pest Dictionary". Below the title, it shows the search date as "06/22/11 at 01:54 PM EDT", search criteria as "Keywords - PYTHIUM ULTIMUM", and sorted by "Scientific Name". There are three tabs: "Text File", "Excel File", and "XML File". The main content is a table with the following data:

Pest Group	Pest Code	Scientific Name	Common Name
Pythium ultimum (GC12882)	FIAFPFG	Pythium ultimum	Black Rot
	FBAAPFG	Pythium ultimum	Pythium Blight
	FIFYPFG	Pythium ultimum	Pythium Leak
	FICBPFG	Pythium ultimum	Pythium Root Rot and/or Crown Rot
	FIGEPFG	Pythium ultimum	Rootlet Rot

Figure 1: New pest dictionary report scheduled to be released in August 2011.

entry for those with no common name. To date, there have been over 150 records uploaded using these new pest groups.

The basis of a pest group is that it is unique to genus and species (i.e. scientific name), keeping in mind that data entry of specific common name/pest entries will continue as previously done in any upload system. The next phase in this development is updating the pest dictionary reports to represent the relationship between pest groups and scientific name combined with common name. This software is anticipated to be released in August 2011. Figure 1 illustrates this new feature.

Once this software has been released, the National Database committee will be

For example, in the case of *Pythium ultimum*, there are five entries in the pest dictionary that have the same scientific name, but different common names, as seen in Figure 1.

Each one of these entries is currently reported separately as a first submission. The proposed changes to the first submission report would instead only report the first time an entry for *Pythium ultimum* was uploaded per state, based on its pest group. In this case rather than five first occurrence reports per state, there would only be one. This will help reduce the volume of first in state reports and provide more meaningful information. This feature is anticipated to be released in the Fall of 2011. 🌿

Visit the NPDN homepage at www.npdn.org for more information on specific Program Area Committees.
Login and password required

CALL FOR POSTERS!

ATTENTION NPDN PROGRAM AREA COMMITTEES: please prepare a poster highlighting your committee's accomplishments and/or activities and/or current projects for the third NPDN National Meeting this November!

POSTER ABSTRACTS are now being accepted through the NPDN **National Meeting website**. The deadline to submit an abstract is August 26!



DIAGNOSTICS COMMITTEE

Diagnosics Committee

Anne Vitoreli, Committee Chair, University of Florida, Department of Plant Pathology

The Diagnosics Committee conducted a conference call on June 9, 2011 and the following agenda items were discussed:

- Two new methods of detection added for PDIS (EM and Incubation)

- Gap audit at Cornell completed
- STAR-D auditor training Fall 2011
- Diagnostic trainings for NPDN

The next conference call is scheduled for July 14, 2011.

EXERCISE COMMITTEE

Exercise Committee

Sharon Dobesh, Program Area Manager/Committee Chair, Kansas State University, Department of Plant Pathology

The Exercise Committee conducted a conference call on June 28, 2011 and the following agenda items were discussed:

- ETKnet update
- Regional Reports

- Poster for NPDN National Meeting
- Communications SOP

The next conference call is scheduled for August 2, 2011.

NATIONAL
DATABASE

National Database Committee

Nancy Gregory, Committee Chair, University of Delaware, Department of Plant and Soil Sciences

Following the last newsletter, the National Database Subcommittee held a conference call on June 8, 2011. The subcommittee continues to work on reviewing the extensive NPDN pest lists. The agenda included:

- Discussion of change submissions
- Discussion of Insect pest files

The next meeting will be held on July 13, 2011.

TRAINING
EDUCATION

Training and Education Committee

Dick Hoenisch, Committee Chair, University of California at Davis, Department of Plant Pathology

The Training and Education Committee conducted a conference call on June 13, 2011 and the following agenda items were discussed:

- Report from Operations Committee meeting at Cornell
- Poster ideas for NPDN November meeting
- First Detector Educator award progress
- Various future meeting and NPDN T&E participation

- New T&E website
- Sentinel Plant Network update
- Protect US update
- First Detector Newsletter
- Twitter/Facebook

The next conference call is scheduled for July 18, 2011.

WEBSITE
COMMITTEE

Website Committee

Karen Scott, Committee Chair, Cornell University, Department of Plant Pathology and Plant-Microbe Biology

The Web Committee conducted a conference call on June 15, 2011 and the following agenda items were discussed:

- The web site access policy that will now be forwarded on to the Operations Committee for approval.

- The current list of “user roles” and possible additions or changes in how they are used was discussed.
- The “login panel” on the national and regional sites will now include the link for First Detector login.

Next conference call is scheduled for July 19, 2011.

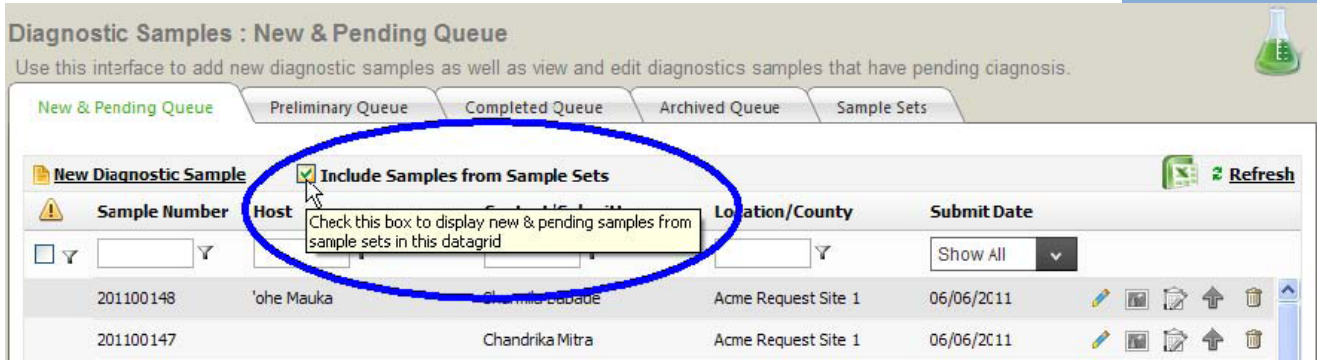
Visit the NPDN homepage at www.npdn.org for more information on specific Program Area Committees.

Login and password required

Include Samples from Sample Sets in Queues

Judy Dizon, Department of Plant Pathology, Kansas State University,

Diagnosticians now have the option to include samples from sample sets in each of the Diagnostic Queues (New & Pending, Preliminary, Completed).



1. Select a Sample Queue from the Diagnostics Menu (Diagnostics: <Lab Name> ⇌ Sample Queues).
2. Mark the option "Include Samples from Sample Sets." 🌿

Summer is Here! Spread the Word: Don't Move Firewood!

Rachel McCarthy, Plant Pathology and Plant-Microbe Biology, Cornell University



Summer is officially here! With summer comes camping; with camping comes firewood. With firewood comes...? Google the word "firewood" and you

are immediately linked to hundreds of information pages, videos and games, posters and factsheets - all with a similar message telling us **not** to move it. Still surprisingly the word or possibly the message does not get to those who need to hear it. Incredible resources are out there! Friend "Don't Move Firewood" on Facebook, follow it on Twitter, watch the videos on YouTube (which are well done and could benefit from a few more viewings). This summer let's spread the word *and* message by passing these

resources, *not* the bugs, along.

The following websites are just a few that offer great links, interactive maps, videos and games; surely something for everyone.

- www.dontmovefirewood.org/
- www.stopthebeetle.info/
- www.beetlebusters.info/

Education and Training



On the same note, the WPDN produces

a quarterly newsletter for First Detectors, and the most recent edition ([spring 2011](#)) features informative updates on some problematic wood boring and bark beetles causing significant damage to areas across our five regions. The following article is an excerpt from the WPDN First Detector newsletter by Steven J. Seybold, USDA Forest Service/UC Davis Forest Entomologist. Please read and pass along. 🌿

Invasive Woodboring Beetles

Steven J. Seybold, Ph.D., USDA Forest Service/University of California at Davis

[Read the full article here.](#)

Biological invasions by alien arthropod species (insects, mites, etc.) represent a major threat to economic and environmental resources worldwide (Pimentel, 1993; Pimentel et al., 2000). Conservatively, in the U.S. alone, approximately 4,500 introduced or exotic arthropod species have an estimated annual economic impact totaling \$20.04 billion USD (Pimentel et al., 2005). In addition to economic damages, introduced arthropod species negatively impact biodiversity by outcompeting native

It appears to be a classic case of movement of a pernicious insect on firewood.

arthropod species for resources and feeding upon genetically naïve plant populations (Wilcove et al., 1998). Thus, the introduction of non-native arthropods to new environments can have unpredictable ecological consequences (Hoagland and Jin, 2006).

In the U.S. some of the major invasive subcortical insects that have attracted the attention of regulators and land managers include emerald ash borer (EAB), the Asian longhorned beetle (ALB), the goldspotted oak borer (GSOB), the redbay ambrosia beetle, and the European woodwasp. All of these insects are from Eurasia, except GSOB, which is an interesting case of an “indigenous” exotic species that appears to have been moved from its native home in southeastern Arizona to new oak species in San Diego, Co., California. Despite this short geographic distance, GSOB has settled in a particularly vulnerable ecosystem and is causing great damage to coast live oaks and California black oaks in rural eastern San Diego Co. It appears to be a classic case of movement of a pernicious insect on firewood. In addition to the invasive subcortical insects noted here, there are a wide number of other invasive insects in this ecological guild that threaten forest and shade trees in the U.S. (Lee et al., 2007; Seybold and Downing, 2009). Sadly, the numbers of these species have been on the upswing as international trade escalates and inspection of the large number of containers becomes a challenging task. 🌿




GPDN Microscopy Workshop

Sharon Dobesh, Department of Plant Pathology, Kansas State University

The GPDN hosted a microscopy workshop in Manhattan, Kansas, on June 7-8, 2011 in Throckmorton. The eleven attendees were from six of the nine GPDN states and included both plant pathologists and entomologists. Topics covered included:

- Theory and Practice of Optical Systems by Scott Musgrove, Boyce Scientific
- Micrometer Calibration by Scott Musgrove
- Image Capture and Analysis by Scott Musgrove

- Microscopy Safety by Mitch Ricketts, KSU College of Agriculture Safety
- Sample Preparation by Judy O'Mara, KSU and Amy Timmerman, UNL
- EM Microscopy Lecture by Dan Boyle, KSU Biology
- EM Hands on with Virus Infected Plant Material by Dan Boyle
- Basic Microscope Maintenance by Brian Arcidino, STAT Microscopes


The workshop was very informative in providing some basic scope knowledge as well as more detailed information on some topics. Both stereoscopes and light microscopes were covered in most topics as applicable. An evaluation of this workshop will be sent to the attendees very soon. 



Training Continues in Delaware

Nancy Gregory, Department of Plant & Soil Sciences, University of Delaware

Delaware continues to train First Detectors with new county agents and

specialists trained as position turnover occurs. The NPDN e-learning modules have proved very helpful for those individuals. Master Gardeners have also been trained as First Detectors, with 29 newly trained in May of this year. Nancy Gregory has worked with county educators to incorporate the First Detector PowerPoint presentations into the Master Gardener curriculum as a three hour training session. 

National Events

August 6-10, 2011
[APS-IPPC Joint Meeting](#)
Honolulu, HA

August 7-11, 2011
National Plant Board 2011 Annual Meeting
Denver, CO

November 6-9, 2011
[NPDN National Meeting](#)
Berkeley, CA

November 13-16, 2011
[ESA 59th Annual Meeting](#)
Reno, NV

Regional Updates

Upcoming Events

November
2011

THIRD NATIONAL MEETING

SHOW YOUR
SUPPORT

EXHIBIT!



NPDN

National Plant Diagnostic Network

*New pests
and pathogens
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*Register today for
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Rachel McCarthy, Editor
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